



C<sup>3</sup> cooling prolongs compressor life



# **Condenser Coil Cooling**

MicroCool's C<sup>3</sup> fogging systems maximize air-cooled condenser efficiency which saves energy and lowers maintenance costs.

- Reduce Peak
  Demand Charges
- Eliminate "High Head" Problems
- Increase Cooling Capacity
- Prolong Compressor Life

MicroCool has mastered process cooling

# Maximize Your Current A/C System

In high heat, when A/C systems are needed the most, they can often struggle to perform. Condensers units lose up to 40% of efficiency and compressors work at peak to maintain cooling capacity. This reduction in efficiency can result in unit failure due to high head pressure.

#### Enter MicroCool to Save the Day

MicroCool's C<sup>3</sup> high-pressure pumping systems force water through patented nozzles that create a 10 micron spray which flash evaporates and extracts large amounts of heat from the air.

Cooler air means cooler refrigerant and that means lower head pressure which in turn results in less power usage, increased capacity and higher efficiency. The result is better cooling efficiency by the same compressor.

### **High-Pressure Fogging Offers Powerful Results**

The "flash evaporation" of water has long been known to drastically reduce air temperatures in hot climates. MicroCool melds this age-old principle with the latest technology, achieving dramatic benefits.

**Higher cooling efficiency** — The cooling potential of one nozzle is the equivalent of about one ton of air conditioning!

**Reduced costs** — Reduced energy consumption and equipment maintenance.

**You're in control** — Systems only run when they are needed, at temperature peaks and when conditions are right for optimal atomization.

Less Power Usage

Lower Head Pressure

Lower Operation Costs

Maximum Efficiency

Increased Capacity of Current Compressor



# Overall efficiency improvements can reach 25% when compared to a system without C<sup>3</sup>



#### Save Energy with MicroCool Technology

Reducing refrigerant temperature using MicroCool's C3 system means lower compressor head pressures resulting in up to 25% less energy use.

The C³ process cooling system also uses significantly less water than spray and pad systems – and a fraction of the water consumed by cooling towers. In addition to saving a precious resource, you save bottom-line dollars.

#### Additional C<sup>3</sup> system technology enhancements include:

UV filters — Eliminate up to 99% of waterborne bacteria

**Nozzles placed in front of the coils** — Increases efficiency by cooling the air moving over the coil, reducing energy consumption

Water-saving design — Each nozzle uses less than 1.5 gph (6 lph)

**Continuous monitoring** — Systems operate only when most effective

#### Run Clean

The integral reverse osmosis process removes all mineral salts from the water and assures that cooling condenser coils are kept clean and deposit free. The C<sup>3</sup> controller monitors ambient air temperature and humidity allowing the system to operate on temperature set points and to pause operation during high humidity levels.

#### **Extend Equipment Life**

Don't replace – refresh! MicroCool C³ systems are often used to increase the performance of older "tired" condensers, instead of installing replacement or extra cooling units. Cooler running means less strain, better performance, reduced maintenance and repair costs, and longer life, with fewer or zero "high head" incidents.

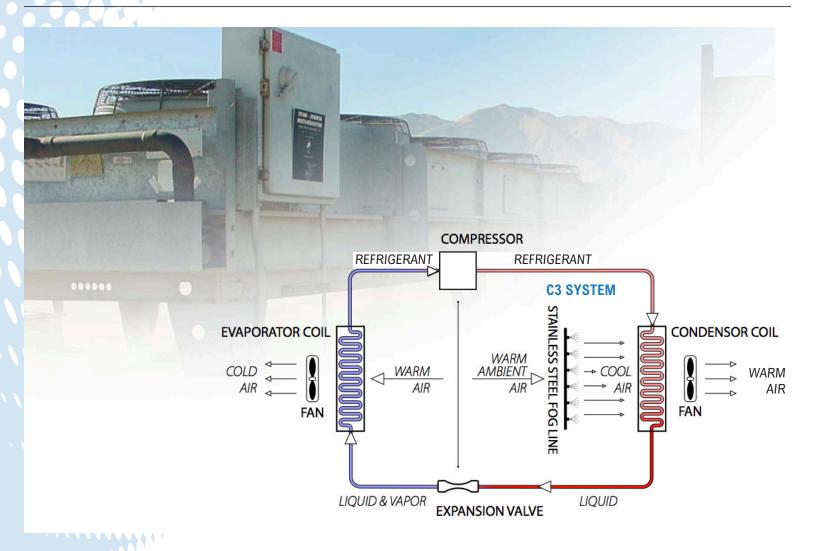


- Standard Models deliver from 2-15
   US gpm with smaller and larger capacities
   available
- Reverse Osmosis Module multiple membranes provide mineral free water which prevents the formation of salts on condenser coils
- Water Concentrate Panel controls cycling, blending and water rejection
- Accumulator Tank with Bladder —
   collects unwanted sediment and minerals
   and isolates from treated water
- **Zone Control** controls cooling based on ambient temperatures and humidity
- **High-Pressure Triplex Pump** produces 1,000 / 70 bar psi
- VFD Pump Technology saves energy by efficiently controlling motor rpm
- Stainless Steel Nozzle Lines with Patented C<sup>3</sup> Nozzles — engineered for strength and flexibility
- High-Pressure Zone Valves —
   virtually eliminate all possibility of a
   "system hammer" or line collapse
- Fault Light Panel quick visual display of potential problems

#### C<sup>3</sup> Applications

- Air Cooled Condenser Coils for air conditioning and cooling
- Air Cooled Refrigeration Units ideal for supermarkets and stores
- Gas and LNG Processing Coolers C3 is perfect for pre-cooling applications
- **Geothermal Cooling** C<sup>3</sup> maximizes cooling capacity
- Data Storage and Condenser Farms where clean, bacteria-free fog is essential

## HOW C<sup>3</sup> SYSTEMS WORK



Standard sizes vary from 2-15 US gpm (7.5-55 lph). Larger and smaller sizes are available per custom configuration.

Contact MicroCool for C<sup>3</sup> Process Cooling solutions using the latest in fog and mist technologies



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